



2012

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Omar, Hatim A. and Merrick, Joav, "Suicidal Behavior and Prevention in Adolescence" (2012). *Pediatrics Faculty Publications*. 126.
https://uknowledge.uky.edu/pediatrics_facpub/126

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Notes/Citation Information

Published in *Current Issues and Controversies in School and Community Health, Sport and Physical Education*, Jennifer A. O'Dea (Ed.), p. 15-22.

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Chapter 2

SUICIDAL BEHAVIOR AND PREVENTION IN ADOLESCENCE

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ABSTRACT

Suicidal behavior in youth is not uncommon and currently one of the leading causes of death in adolescence in many countries around the world. Individual risk factors for suicidality in youth include: psychiatric disorder; certain personality characteristics; genetics; gender; sexual orientation; and previous suicide attempts. Family psychopathology and environmental factors such as media contagion also contribute as risk factors. Developmental issues, including: the establishment of independence and intimate relationships; as well as the pursuit of personal and career goals; may also provide stressors leading to suicidality. Prevention and intervention strategies are considered and include: early detection and treatment of mental disorders that increase suicide risk; increasing mental health services; training non-mental health professionals to assess for suicidality in young people; and providing post-attempt assessment and treatment.

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INTRODUCTION

Suicide is a leading cause of death across the lifespan in many countries, the third cause of death in 15-24 year-olds and fourth cause of death in 25-44 year-olds (Merrick & Zalsman, 2005; Minino et al., 2006). Suicide in youth has been estimated to reach its peak between the ages of 19 and 23 years (Shaffer et al., 2001) or between the ages of 18 and 24 years (World Health Organization, 1999). Some authors (Reynolds, 1991) have reported that the average level of suicidal ideation experienced by college students was higher than that experienced by same-age young adults in the community. College student surveys have shown that as many as 50% admit to past-year suicidal thinking with 8-15% acting on those thoughts (Brenner, Hassan, & Barrios, 1999).

Other studies challenge the claim of a higher suicide rate among college students compared to non-college peers when reported figures are scrutinized statistically (Lipschitz, 1990). In a comprehensive attempt to compare the incidence of suicide among college students to a matched national sample of non-college peers, Silverman et al., (1997) found that for the 10-year period studied, college students had half the suicides of the non-college sample, i.e., 7.5 suicides per 100,000 for college students compared with 15 suicides per 100,000 for the non-college sample. They concluded that their findings supported those of others who found a lower overall suicide rate in college students versus the general population (Schwartz, 1990; Schwartz & Whitaker, 1990).

RISK FACTORS

In a longitudinal study, 496 young people aged between 10-21 years, who had committed suicide during 1981-97 in Denmark, (Agerbo et al., 2002) were compared in terms of family and individual psychiatric and socio-economic factors with over 20,000 controls, matched for gender, age and time. Parental factors associated with an increased risk of suicide included: suicide or premature death; admission to hospital for a mental disorder; lack of employment; inferior education/schooling; low income; divorce; mental illness in siblings; and mental illness and short periods of schooling among the young people themselves. The strongest determinant or risk factor was mental illness in the young people. The effect of parents' socio-economic status decreased, after adjustment for a family history of mental illness and a family history of suicide. Risk factors for suicide in the school setting include some of the issues listed here and some we will discuss in more detail:

- Previous suicide attempts;
- Close family member who has committed suicide;
- Past psychiatric hospitalization or mental illness;
- Recent losses: This may include the death of a relative, a family divorce or a break-up with a girl- or boyfriend;
- Social isolation;
- Drug or alcohol abuse;
- Exposure to violence in the home or the social environment;
- Handguns in the home.

Mental Health as a Risk Factor

Psychiatric disorders have been shown to play a major role in youth suicidal behavior (Beautrais, 2003) and up to 90% of completed suicides have at least one disorder at the time of death. Those with multiple or comorbid mental disorders have a elevated risk of suicidal behavior compared to those with no disorder (Shaffer et al., 1996).

Mood disorders, like major depression and bipolar disorder have been shown to produce significantly elevated risks of suicidal behavior in college students (Lester, 1999). Depression is the most common diagnosis among young adults who have attempted or completed suicide. Substance abuse has also been associated with suicidal behavior (Shaffer et al., 2001), and studies have found evidence of alcohol/substance abuse in 38% to 54% of youth suicide victims (Miller & Glinski, 2000).

Externalizing disorders, i.e., conduct disorder, oppositional defiant disorder, antisocial personality disorder, have significant correlations with suicidal behavior in young people. Shaffer et al. (1996) found that those with conduct disorder had three times the probability of suicide than those without such disorder. Anxiety disorders have also been shown to have a small, but significant association with suicidal behavior in youth (Beautrais, 2003) and those with psychotic disorders are at high-risk for suicidal behaviors. However, since these disorders affect relatively few young people, they make a small contribution to overall rates of suicidal behavior in this population (Beautrais, 2003).

Personality

A number of studies have looked at personality characteristics associated with suicidality in young adults. Among the characteristics found to be associated are dependency and self-criticism (Fazaa & Page, 2003), high scores on measures of neuroticism (Chioqueta & Stiles, 2005) and hopelessness (Shaffer et al., 1996; Merrick & Zalsman, 2005) and positive attitudes toward suicide (Gibb et al., 2006).

Genetics

A strong predictor of suicidal behavior in young people is the presence of a family history of suicidal behavior (Mann, Brent, & Arango, 2001), suggesting a genetic component to suicide. Twin studies have shown moderate levels of inheritability in which up to 45% of variance in suicidal behavior may be genetic (Statham et al., 1998). In recent years, researchers have attempted to identify marker genes with a particular focus on those involving the serotonergic system, but the results are so far inconclusive (Merrick & Zalsman, 2005).

Gender

Being male places one at much higher risk for a completed suicide. While females attempt suicide much more frequently (Shaffer et al., 2001), among 20-24 year-olds, the ratio

of male to female completed suicide is greater than 6:1 (National Center for Health Statistics, 2006). Method of suicide also varies between genders, with ingestions accounting for approximately 16% of 15-24 year-old female suicides, but for only 2% of suicides in males; males are much more likely to use firearms (Shaffer et al., 2001; Merrick & Zalsman, 2005).

Kirkcaldy et al. (2006) explored the determinants of self-injury and attempted suicide among adolescents in psychiatric care. They were able to identify common and specific social and psychological factors of covert aggression. For example: age; disharmony within the family; and excessive parental demands, emerged as significant global determinants of suicidal behaviour for both male and female adolescents. The same variables, however, were unrelated to self-injurious or socially disruptive behaviour, the latter being more associated with parental under-involvement and feelings of hostile rejection. Gender specific predictors of self-injurious and suicidal intent were found. Intelligence and age were significant predictors of overt aggression among females only. Moreover, although intellectual functioning, number of siblings and disability among family members emerged as major determinants of suicidal behaviour among males, this was not the case for females.

Sexual Orientation

Research has shown that young people who identify as gay, lesbian, or bisexual (GLB) were twice as likely to have a history of suicidal behavior than their heterosexual peers (Russell & Joyner, 2001). Stressors associated with suicidal behavior in this population include interpersonal turmoil associated with publicly acknowledging one's sexual identity, especially to parents, discrimination and victimization related to sexual orientation (Cochran, 2001).

Another study showed that primarily heterosexual college students did not respond empathically to GLB's suicidal behavior. Due to the negative attitude of parents to 'coming out,'. This was in contrast to their empathic response to suicidal behavior in someone informed about an incurable illness (Cato & Canetto, 2003). These results suggest that young heterosexual adults may not be accepting of gay lifestyles.

Prior Suicide Attempts

Previous suicide attempts predict higher probability of future suicide attempts (Gould et al., 2003; Shaffer et al., 2001). Estimates have ranged from 18%-50% for those completed suicides with a past attempt (Rudd, Joiner, & Rajab, 1996), indicating wide variability in studies, regarding numbers of attempters completing suicide. Rudd, Joiner, & Rajab (1996) in an effort to bring clarity to the issue of which attempters become completers, divided their sample into ideators, attempters, and multiple attempters. They found that multiple attempters showed more severe symptoms and elevated suicide risk relative to both ideators and attempters. A more recent study (Joiner et al., 2005) looked at four different samples differing in age, clinical severity, and gender, and found that past to current suicidality was direct and not accounted for by covariates, indicating that past suicidality may be a causal factor in future suicidality.

Family Issues and Life Events

Parental psychopathology, depression, and substance abuse all contribute as risk factors for youth suicide. Parental or family discord and/or parental separation or divorce have an impact as well (Gould et al., 1996; Merrick & Zalsman, 2005).

Negative life events have been shown to be related to suicidality in youth (Joiner & Rudd, 2000). A history of physical and/or sexual abuse during childhood (Beautrais et al., 1996) has also been associated with sexual abuse being more significant. Brown et al. (1999) estimated that *between* 16.5% and 19.5% of suicide attempts in young adults may be due to child sexual abuse, but forms of childhood maltreatment have also been shown as risk factors (Gratz, 2006).

Environmental factors that influence suicidality in youth include media-generated exposure. An increased rate in suicides and an increase in the depicted method of suicide has been seen, following suicides shown on television. Adolescents and young adults appear to be most easily affected by media influence, with only minimal effects after age 24 (Gould et al., 2003).

PREVENTION AND INTERVENTION

Whenever feasible, the best approach to school-based suicide prevention activities is teamwork that includes: teachers; school health professionals; school psychologists; and school social workers; working in close cooperation with community services. Studies indicate that the best way to prevent suicide is through early detection and treatment of depression and other psychiatric illnesses that increase suicide risk. Beautrais et al. (1996) found evidence that the elimination of mood disorders would result in reductions of up to 80% for those in risk of a serious suicide attempt. This is not to imply that factors other than mood disorders are unimportant in suicidal risk, but adequate recognition and treatment of mental disorders are good first steps toward suicide prevention.

Prevention of suicide may often depend upon front-line professionals who see suicidal youth. These professionals will not likely be mental health professionals, so primary care physicians and others who have substantial contact with youth need to be aware of and screen for suicidal ideation.; Such assessment needs to occur before a suicide attempt as well as after an unsuccessful one. A number of studies have shown that deliberate self-harm patients who presented to emergency rooms and left without a psychosocial and/or psychiatric assessment were more likely to engage in subsequent self-harm (Kapur et al., 2002). Thus, prevention of suicide must include intervention, regarding the precursors of the ideation, intention, and behavior as well as continued assessment and treatment subsequent to a suicide attempt. Warning signs of suicide and identification of stress, with any sudden or dramatic change affecting performance, attendance or behaviour should be taken seriously. Warning signs may include:

- Suicidal talk;
- Preoccupation with death and dying;
- Signs of depression;

Behavioral changes;
Giving away special possessions and making arrangements to take care of unfinished business;
Difficulty with appetite and sleep;
Taking excessive risks;
Increased drug use;
Loss of interest in usual activities;
Lack of interest in usual activities;
An overall decline in grades;
Decrease in effort;
Misconduct in the classroom;
Unexplained or repeated absence or truancy;
Excessive tobacco smoking or drinking, or drug (including cannabis) misuse;
Incidents leading to police involvement and student violence.

These factors can help to identify students at risk and if any of these signs are identified by a teacher or school counselor, the school team should be alerted and arrangements made to carry out an evaluation of the student.

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